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## How to Find Economic Facts and Apply Them as a Basis for Extension Programs in Home Economics, Dairying, and Forestry<sup>1</sup>

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### FOREWORD

There is a new and important development in cooperative extension work. Extension agents have long sought to make their teaching more effective by studying local needs and then organizing programs of extension work based on these needs. Until recently, however, such studies and the resultant programs have largely been developed in terms of better subject-matter practices and skill. It has become increasingly apparent that the most effective extension teaching and that which gives the best service to agriculture as the basis of country life rests on something deeper, namely, a fuller knowledge of incomes earned by farm people, how these incomes may best be dispensed in carrying on the activities of the home and farm, and the economic factors, past, present, and future, which affect the income-producing capacity of the different farm enterprises in the community, county, State, or Nation. In short, it is evident to extension agents that extension programs rightfully should be based on a thorough study of facts gathered in three main fields:

(1) Farm incomes and possible readjustments in farm and home enterprises to increase these incomes.

(2) Economic long-time factors, such as price, enterprise outlook, consumer demand and supply, advantages and disadvantages of competing areas, and transportation factors, which have affected or may affect the various enterprises in any community.

(3) The practices best suited to help farmers and farm women to succeed in the readjustments undertaken under (1) and (2) above.

Many of these facts are now available through resident teaching divisions and experiment stations of the land-grant colleges and research bureaus of the United States Department of Agriculture.

<sup>1</sup> As developed at the conference of State directors of extension, State leaders of home demonstration work, home-economics specialists, dairy specialists, and forestry specialists of the Eastern States, at Washington, D. C., February 26, 27, and 28, 1929.

Additional facts need to be gathered from the experience of farmers and home makers. Assistance and cooperation from the above sources should be utilized in making surveys to gather this additional information.

How to find these facts and apply them to the extension program was the main subject of discussion by State directors of extension, State leaders of home demonstration work, and the extension specialists in home economics, forestry, and dairying attending the annual Eastern States conference in Washington, February 26, 27, and 28, 1929. As a result, the home economics, dairying, and forestry groups each outlined a suggested procedure for finding and applying such facts to the programs for these three lines of work. The procedure proposed in connection with each line of work is given.

The conference was a new venture in several respects. Little emphasis was placed on the presentation of papers, most of the time being devoted to group conferences of the different sections which addressed themselves to the central theme of the conference. These sectional conferences were of the discussion type, and the effort was made to arrive at practical ways and means of determining more effective extension programs. It is believed that this type of conference is well worth further trial. Certainly, the problem of finding economic facts and applying them to extension programs is one that should receive the earnest attention of all extension agents.

T. B. Symons, director of the Maryland Extension Service, was chairman of the conference and A. L. Deering, assistant director of the Maine Extension Service, secretary. Their leadership and the very helpful discussions and guidance by the several discussion leaders made it possible to develop the central theme so that all present could apply it to their own work in the various States in which they are located.

### HOME ECONOMICS SECTION

Committee: Marion Butters, New Jersey, chairman; Annette T. Herr, Massachusetts; Marjorie E. Luce, Vermont; and Florence L. Hall, United States Department of Agriculture.

The guiding principle in all farm-management studies is also applicable in planning extension programs in home demonstration work. This is to study the incomes, expenditures, and organization of the farms of a community and to use the data from the most successful farms in determining recommended adjustments for the majority of farmers. Therefore, most of the work of the conference in this field was to develop a suggested detailed plan of work for obtaining from farm women in a similar way the data on home conditions, incomes, needs, and expenditures, to serve as a basis for programs of work which would make home-demonstration teaching more helpful and effective.

The discussion method was used throughout the meetings of the home-economics group. The plan accepted was to work out a method of procedure—

- (1) To determine home conditions as they actually exist.
- (2) To stimulate a consciousness on the part of the farm women of their own problems.
- (3) To present to them the solutions of these problems.



(4) To stimulate a desire to solve these problems and to rouse them to adopt practical measures which would aid in bringing about the solutions.

The members of the group agreed that the standard of home making depends largely upon the income of the farm. A large percentage of the homes in the North Atlantic States are handicapped by the small size of the farms, resulting in an average income considered by the group to be too low to provide adequate family living on farms. The group not only kept this average income in mind but attempted to set up what they considered as the minimum requirements for adequate home life.

The whole group was divided into committees as follows: (1) Farm-home conditions, including budget; (2) food; (3) clothing; and (4) advancement.

The following list of questions was provided for each group to direct their thinking:

(1) What food, clothing, house furnishings, budget, etc., standards would you set up for a farm family?

(2) What differences in practices do you recommend in maintaining this standard where the amounts of cash available for family living are as follows: \$500, \$800, \$1,200, \$1,500?

(3) In a county how would you determine what is the amount of money spent for various phases of home making?

(4) How would local farm women obtain this information?

(5) What list of questions could farm women answer which would give information along some phase that will illustrate the procedure you recommended in questions 3 and 4?

After discussing these questions the several committees came together as a group to consider the minimum essentials for home making and their costs.

From data collected by the Bureau of Agricultural Economics from 1,500 crop correspondents who were owner operators of farms in the North Atlantic States it was found that the majority of farm families have between \$500 and \$1,000 in cash available annually for family living. In addition, the farm provides from \$300 to \$800 in the form of food, fuel, and shelter.

It was the opinion of the group that farm families with lower incomes are forced to spend most of their cash for food and clothing and are unable to enjoy other advantages which are considered essential. The group agreed on certain minimum essentials for home making and their cost, distributed somewhat as follows:

*Cash income to allow for minimum standards in a typical family consisting of two parents, a girl of 15, a boy of 11, and a girl of 3*

Food (farm to produce milk, eggs, and poultry, and 50 per cent of fruits and vegetables)-----	\$450
Clothing-----	400
Fuel and light (heat for three or four rooms)-----	125
Health, low estimate-----	100
Operating expense and furniture (allow for one replacement a year)----	150
Education, including savings-----	110
Church, charity, and other gifts-----	60
Recreation-----	75
Total-----	1,470

Since this proposed budget calls for an income much higher than most farm families have in the North Atlantic section, it was agreed

that a method of procedure needs to be adopted in order to stimulate the farmer and the home maker to a consciousness of this problem and to aid them in ways and means of attaining the necessary funds.

#### DETERMINING HOME CONDITIONS

The committee agreed that probably the most effective method of determining home conditions as they exist is some type of questionnaire or survey to be discussed and filled out by local groups of home makers. This conclusion brought up the problem of the type of survey to be used and the plan of procedure. It was the consensus of the group that survey questions should have the following characteristics:

(1) Questions should be of such a nature that they can be answered by farm women with reasonable accuracy.

(2) The answers to the questions should be typical of the community rather than on a personal basis.

(3) Questions should be asked in such a way as to stimulate thinking.

(4) Most of the questions should be asked in such a way that they can be answered on a percentage basis.

Examples: (Right) What percentage of the homes in this community provide a place for school children to study undisturbed?

(Wrong) Do the homes of this community provide a place for the school children to study undisturbed?

The group agreed that the content of questions should be considered by members of the extension staff at the colleges as well as by the county workers. The subject-matter specialist should formulate the questions covering her field of activities, the questions in all lines having the approval of the extension service. As soon as the questions are agreed upon, the home demonstration agent should call in groups of home makers to go over the questions and train them in methods of getting these data for their respective communities. These trained leaders should obtain this information at community meetings. The gathering of this information may take a month or six weeks. As soon as these surveys are completed they should be assembled at the home demonstration office and be summarized and analyzed by the home demonstration agent and the State extension staff. The next step should be to determine tentatively in what phases of home making the county is failing to meet standard requirements.

#### PLANNING THE COUNTY CONFERENCE

Following the survey a county-wide meeting should be called, to which home makers from all parts of the county should be invited to discuss the home-making conditions in the county and to work out a series of recommendations with reference to home making.

With the survey data in mind, the extension service prior to the county conference should work out a series of discussion questions to be used to guide the thinking of the members of the conference. These questions should be devised to bring out the weaknesses in the system of farm home making and to get from local women proposed solutions of their problems.

The recommendations made by the farm women at such a conference should be used as a basis in formulating the home demonstration program in any county.

## DAIRY SECTION

Committee: E. B. Fitts, Pennsylvania, chairman; J. E. Ladd, Rhode Island; F. B. Morris, New York.

While the dairy specialist has rendered a valuable service to the dairy farmer by giving him subject-matter information, the question arises whether the dairy specialist can not make his teaching still more effective by correlating the subject-matter information with the trends of the dairy business, the future needs of the industry, and the need of dairy farmers to increase their incomes by readjusting their farm enterprises, including dairying.

There are many sources of this fundamental material, such as The Agricultural Outlook, census data, and studies made by consumers, agricultural cooperatives, agricultural economic departments, and local surveys. All these take into account surpluses and deficits, the market situation, advantages and disadvantages of competitors, general price trends, increase and decrease of the industry, cost of changes in the industry, and transportation.

In addition to the study of this broad general information, consideration should be given by the specialist to the economics of the individual farm business, which will include such facts as the farm income, the source of this income, and how it may be increased. After the specialist has associated and presented the information from this latter study with the long-time trends of the industry, he is in a position to make specific recommendations.

One of the problems now facing several of the specialists in the Eastern States is the one dealing with the expansion of the dairy industry. The questions arise: Should the eastern dairyman expand his business? Should new territory in the Eastern States be encouraged to go into the dairy business? The answers to these questions are to be found in a thorough study of the economic information relating to the entire dairy industry in addition to a careful analysis of individual farm business in the territory involved.

The summary of the projects now being emphasized in the Eastern States showed that the specialists are giving most attention to the following: Better bulls, better cows, more efficient feeding, more economical production of feeds, and dairy-herd-improvement records. The needs of the eastern dairymen as presented by the group corresponded to these projects. A. W. Manchester, of Connecticut, presented some dairy-farm income figures from Pennsylvania and Connecticut showing that most of the dairymen in those two sections were not receiving sufficient income to maintain a desirable standard of living. The group agreed that one method of increasing income was to increase the production per cow. The ultimate average production per cow toward which the extension service might work in the next 10 years was placed at 7,500 pounds of milk or 300 pounds of butterfat. It was figured that this increase in production would mean for the average 8-cow dairy an increased income of only \$480 per year, or a total of only \$1,080. It was apparent that this sum would not be sufficient to raise the standard of living on the average farm to a desirable level. The conclusion was reached that emphasis by the extension service on increased production per cow was not enough and that the problem of the dairymen in the



territory involved consideration of other sources of income and other adjustments in the size and kind of farm business. There is a real need for the dairy specialist to broaden his field. He should acquire knowledge of the basic economic trends of the dairy industry and of specific facts concerning the farm income and general business set-up.

The value of a county or state-wide program based on a study of a survey and planned, not on an annual, but on a long-time basis was clearly demonstrated by R. F. Talbot, of Maine, in a discussion of the bull-campaign program of his State. This campaign involved the following steps:

- (1) A study of the situation which revealed the fact that Maine was ideally situated for the raising of dairy calves and that 46 per cent of the bulls were scrub bulls.
- (2) Outlining the recommended practices.
- (3) The making up of a state-wide prospect list.
- (4) Launching the project through the dairy leaders.
- (5) Stimulating an interest in the campaign by various methods during a period of several months.
- (6) Enrollment.
- (7) Follow-up work on subject matter.
- (8) Check-up on results.

The need for a method of record keeping other than by the dairy-herd-improvement association in order to meet certain local needs and include a greater number of farms, was brought out in the discussion by the dairy specialists.

#### FORESTRY SECTION

Committee: R. B. Parmenter, Massachusetts, chairman; J. A. Cope, Pennsylvania; C. R. Anderson, Pennsylvania.

The subject, "How to find and apply economic material as a basis for extension programs," was discussed at length, and attention was called to the following sources of information:

- (1) Reports of the Bureau of the Census and of other bureaus of the United States Department of Commerce.
- (2) Various studies within the State made by—(a) United States Geological Survey (soil surveys) and (b) State departments, as in Massachusetts by the white-pine blister-rust agents and the department of conservation, in Maryland by the State board of forestry, in New York by the State college of Agriculture and the extension service, and in Vermont and Wisconsin by country-life commissions.
- (3) Various studies within the county made by the extension forester and county agent. These State and county surveys were discussed at length, especially the ways and means of using the data obtained. In the discussion of the amount of work which should be done by extension forces in obtaining the data, it was agreed that the extension forces should go only as far as is actually necessary to obtain the essential facts.

It was believed that the census figures were accurate enough to serve as a basis for the economic studies necessary before the launching of the forestry project. With the census figures in hand and other data which he may have been able to obtain from various sources, the extension forester should localize this information in a county by meeting with the county agent for one or two days to discuss the value and accuracy of the data at hand.

The duties of extension foresters were thoroughly discussed. It was the sentiment of the group that the function of the extension



forester was to bring about change of practices or adoption of new practices, through group meetings and demonstrations. It was believed that there should be only a limited amount of personal service, and in particular that the extension foresters should be careful not to let these personal services be commercial in character.

All the members of the group were agreed that the extension forester should overlook no possible source of information in seeking material. He should have all data at hand before starting a project.

The problems developed in extension forestry work in the Eastern States are (1) wood-lot management, (2) reforestation of idle farm land (3) timber estimating, (4) 4-H club work, and (5) management of sugar orchards and the production of maple sugar.

The problem of wood-lot management is to show the farmer how to improve his wood-lot area and to obtain greater returns from it. In the case of immature wood lots near a market for low-grade material only, this is best done by making improvement cuttings. In the case of wood lots with mature timber and near-by markets, wood-lot management will include (1) estimating mature timber, (2) timber marking, and (3) marketing the marked timber. It was brought out that the extension forester could justifiably conduct demonstrations in timber estimating in order to interest owners in wood-lot management.

The problem of the reforestation of idle farms is much more acute in some States than in others. It should be recognized, however, that reforestation has a strong public appeal and that extension foresters should capitalize this fact in endeavoring to bring about a greater appreciation of forestry on the part of landowners. It was brought out in the discussion that there is need for further research in methods of controlling insects affecting species recommended for planting. There was also general discussion of species and size of stock most suitable for reforestation purposes. Considerable interest was shown in Christmas-tree plantations.

Four-H club work was discussed at length, and all were agreed on the desirability of progression in the program. The extension foresters believed that forestry study for boys and girls should progress in an orderly manner from one project to another for at least four years, commencing with identification of trees and wood collection and advancing to planting, improvement cuttings, and possibly Christmas-tree projects. No hard and fast order of progression was recommended.

The maple-sugar industry and the possibilities of improving the sugar bush were discussed by a number of the extension foresters. Better manufacturing methods and cooperative marketing were presented as the means by which the owner of a sugar bush might obtain a higher price for his maple products. Silvicultural work in the sugar bush itself could be handled as a specialized wood-lot improvement project.

The subject of conducting the project was the most important one discussed. The manner in which the project of reforestation should be carried out may be summarized as follows:

- (1) Pick areas for intensive work.
- (2) Establish demonstration plantations in sections best fitted from the standpoint of publicity.
- (3) After the third year begin to spread the practice.

To "sell" the project of wood-lot management to the farmer it was regarded as best to—

(1) Establish demonstration plots—(a) with a check plot, and (b) without a check plot.

In connection with the demonstration plot without a check plot show the silvicultural method and call attention to the income derived.

Having a demonstration plot with a check plot entails collecting considerable data as to the number of trees on the plot, the number removed, the diameters of trees removed and of those left standing, and the growth per year of the trees on each plot.

A demonstration plot without a check plot is one on which the extension forester has marked the trees for thinning and the owner has cut the trees, piled the wood, and kept cost data for the project. All these data are used to "sell" the project to the group attending. The type, quality, and condition of the trees on the lot are discussed in order to acquaint the group with the system to follow in thinning.

The problem of wood-lot management as carried on in Pennsylvania was discussed at length. An intensive campaign was advocated as the best method of spreading a practice effectively. Intensive, but not high-pressure methods should be succeeded during part of each year for two or three years by a prolonged follow up.

The extension foresters were agreed that it was necessary to obtain from all possible sources the economic material available prior to initiating the project; to study local conditions thoroughly before deciding on a project for a county; to outline the work with the county agent, the extension forester and the county agent together preparing a definite plan to present to the directing agency (the extension association or forestry council) within the county for its approval; to establish demonstration areas; and eventually to carry on an intensive follow-up campaign to put the project across.

#### WHAT WAS GAINED AT THIS CONFERENCE

By C. B. SMITH, *Chief, Office of Cooperative Extension Work*

A step forward in program building was made at this conference. Having a single theme for all the sessions provided an opportunity to think matters through and to arrive at practical conclusions. In a substantial degree this conference was a teaching conference in which the teaching was accomplished by a drawing-out process. All the members of the conference contributed to the enlargement of the general fund of knowledge. The outstanding thought was that back of the extension program must be facts. It is not enough to have a full program. The program must be on the right basis. The conference was primarily concerned with the sources of facts that would make it possible to build an extension program on the right basis.

One of the most far-reaching suggestions brought out by the conference was that standards of living be set up and that farming be so adjusted as to permit the attainment of those standards. To formulate what is wanted and then to show how these wants can be satisfied through adjustments in farming is to give life and point to all extension teaching. No better plan for stimulating farm men and women to think through their objectives in life has been sug-

gested in all the years of extension experience than the plan of having men and women sit down together and with the aid of county extension agents and technical counsel from the State agricultural college set up standards for the home and farm that will make life for the family and the community worth the living.

The home builds morale in rural life. The better the home the better the morale. This is a thought which the conference gave rise to that is worth emphasizing. Extension has no bigger task than the development of high standards of living on the farm. At this conference the fact was brought out that much can be accomplished in this direction even without a greatly increased income. By a little more thought, a little higher ideal, a little more knowledge, and a little more work and planning, much may be accomplished. A good home is not just a concern of the home economics specialist. It is the concern of every extension man and woman who comes in contact with rural life. If the work of the extension specialist and his contact with rural people do not result in better homes, his plan of work might well be revised.

The extension service should be an agency that helps primarily to make the 6,000,000 homes in rural America into homes of culture, contentment, and beauty—places where the heart abides. The whole Nation profits by a high standard of living in the rural home. Extension agents have the privilege of working in that field, and no field is more important.

The discussion centering on marketing as a phase of extension work brought out a thought as to the improvement of mass production that bears emphasizing. We have been somewhat prone, for example, to measure the results of poultry extension work by the number of poultry flocks culled and improved poultry houses built. Should a lower goal be aimed at than the raising of the average production per hen for the whole country or whole State from, say, 70 eggs per hen to 140 eggs per hen in 10 years? The extension service in one State took as a goal in 1920 the raising of the butterfat per cow for the 522,000 cows in the State from the average then of 183 pounds per year to 265 pounds per year in 10 years. After seven years' effort, the State reported that it had succeeded in raising the average for the whole State to 239 pounds per cow for 599,000 cows. In the three years more, before the time set, this State may attain its goal of 265 pounds per cow. If extension workers are going to influence agriculture in a large way, they must have the vision and determination to set and attain these higher goals.



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June 15, 1929

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